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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,738	02/21/2007	Ola Winqvist	20084-002US1	9383

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EXAMINER	
REDDIG, PETER J	

ART UNIT	PAPER NUMBER
1642	

NOTIFICATION DATE	DELIVERY MODE
06/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	10/530,738	WINQVIST ET AL.	
	Examiner	Art Unit	
	PETER J. REDDIG	1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/2/07 2/10/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-10 are currently pending and under consideration.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 1A-C, 2 A and B, 3A and B, 4 A and B. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: administering the expanded lymphocytes to a subject in need of the expanded lymphocytes from sentinel lymph nodes.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The factors to be considered in determining whether undue experimentation is required are summarized In re Wands 858 F.2d 731, 8 USPQ2nd 1400 (Fed. Cir, 1988). The court in Wands states: "Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations." (Wands, 8 USPQ2d 1404). The factors to be considered in determining whether undue experimentation is required include: (1) the quantity of experimentation necessary, (2) the amount or direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

Claims 1-9 are drawn to a method for treating and/or and preventing the recurrence of cancer, which comprises the steps of a) providing lymphocytes obtained from sentinel lymph nodes from a patient; b) and expanding the lymphocytes in vitro. Thus, the claims are drawn to treating and/or preventing the recurrence of cancer without administering the expanded lymphocytes to a subject with cancer. Additionally, claim 10 is drawn to a kit for carrying out the method according to claim 1, comprising a dye and a substance capable to stimulate

proliferation of lymphocytes. Thus, claim 10 is drawn to a kit that can be used for treating and/or and preventing the recurrence of cancer by the steps of a) providing lymphocytes obtained from sentinel lymph nodes from a patient; b) and expanding the lymphocytes in vitro using a dye and a substance capable to stimulate proliferation of lymphocytes, which encompasses a substance able to stimulate all lymphocytes and using it for treating and/or preventing the recurrence of cancer without administering the expanded lymphocytes to a subject with cancer.

The specification teaches that the lymphocytes from sentinel lymph nodes are exposed to stimulating agents for expansion, such as with CD3, phorbol ester with a calcium ionophore, or with an anti-CD3 antibody and an anti-CD28 antibody to stimulate proliferation of T cells, see p. 6- lines 15-24. The specification teaches that T-cells obtained from lymph nodes may be stimulated for maintenance and expansion with IL-2, see p. 7-lines 13 and 14. The specification teaches that IL-12, INF-alpha and anti-IL4 antibody can be used to activated CD4+ T helper cells toward IFN-gamma producing Th1 effector cells, see p. 7-lines 13 and 14. Thus, the stimulation of lymphocytes encompasses inducing cell proliferation of lymphocytes. The specification teaches the stimulation and induction of proliferation of T-cells from sentinel lymph nodes with Concanavalin A and IL-2, see Example 2 and p. 12.

One of skill in the art cannot extrapolate the teachings of the specification or art of record to enable the claims because one of skill in the art would not predictably be able to treat or prevent the recurrence of cancer without administering the lymphocytes to a subject in need of such a treatment or use a kit to so because the lymphocytes would not be able to contact or affect the cancer in any way. Additionally, the stimulation or activation, including inducing cell growth, of lymphocytes with cytokines, antibodies, or other factors is cell type, context and

factor dependent and one of skill in the art would not predictably be able to stimulate the growth of all lymphocytes from sentinel lymph nodes of a patient with the contemplated and claimed combination of cytokines or antibodies or a generic substance. In particular, Janeway et al. (Immunobiology 5, Garland Science, 2001, Figure A.24) teach that lymphocytes are made up of different subsets of B cells, T-cells, and natural killer cells. Additionally, Janeway et al. (Immunobiology 5, Garland Science, 2001, Appendix III) teach that there are various cytokines that stimulate proliferation of different types of lymphocytes, but does not teach any substance that can stimulate all lymphocytes. Furthermore, with regard to the specifically claimed cytokines and antibodies for stimulation of lymphocytes, Harada et al. (Immunology 1996 87: 447-453) teaches that CD28 antibody does not work alone to stimulate the expansion of lymphocytes see Table 2. Additionally, US Pat. App. Pub. 2002/0182730 (Gruenberg et al. July 31, 1998) teaches that antibodies to IL-4 promote the differentiation of T cells, not proliferation, see para 0091-0094, and USPN 5,767,065 (Mosley et al. 1998) teaches that anti-IL4 antibody inhibits Il-4 induced B-cell proliferation, see Fig. 7. Furthermore, Spits et al. (J. Immunology 1987 139: 1142-1147) teach that IL-4 stimulates B-cell and T-cell growth factor activities, Abstract. However, Hofman et al. (J. Immunology 1988 141:1185-1190) teach that IL-4 can induce differentiation of pre-B cells in the presence of IL-3 and the supernatant from a T-cell line, see Abstract and p.1188. Thus, the effects of cytokines like IL-4 and antibodies to them are context and cell type specific. Furthermore, Perussia et al. (J. of Immunology 1992 149: 3495-3502) teach that while IL-12 can stimulate T cell proliferation it also can inhibit the IL-2 induced proliferation of subsets of T-cells and natural killer cells, see Abstract, Figs. 6-9 and p. 3501-1st col. Biron (Immunity 2001 14: 661-664) teach that the lymphocyte responses to IFN alpha is

dependent upon the context in which it is present, see Figure 1. Given that the response of lymphocytes to stimuli like cytokines and antibodies is cell type, context and factor dependent and in the absence of sufficient guidance or exemplification from the specification that the broadly claimed combinations of cytokines, antibodies, or substances can be used to stimulate proliferation of lymphocytes, one of skill in the art would not be predictably be able to use the method as broadly claimed.

Furthermore, the specification lacks the critical steps necessary in presenting some type of predictable response in a population of hosts deemed necessary to prevent cancer. Reasonable guidance with respect to preventing any cancer relies on quantitative analysis from defined populations which have been successfully pre-screened and are predisposed to particular types of cancer or have had cancer. The essential element towards the validation of a preventive therapeutic is the ability to test the drug on subjects monitored in advance of clinical cancer and link those results with subsequent histological confirmation of the presence or absence of disease. This irrefutable link between antecedent drug and subsequent knowledge of the prevention of the disease is the essence of a valid preventive agent. Further, a preventive administration also must assume that the therapeutic will be safe and tolerable for anyone susceptible to the disease. All of this underscores the criticality of providing workable examples which are not disclosed in the specification. The prevention of cancer is highly unpredictable. The majority of studies suggest that the essential element towards the validation of a preventive therapeutic is the ability to test the drug on subjects monitored in *advance* of clinical cancer and *link* those results with subsequent histological confirmation of the presence or absence of disease. Further, reasonable guidance with respect to correlating agents that prevent cancer may

depend upon quantitative analysis from defined populations that have been successfully pre-screened and are predisposed to particular types of cancer. This type of data might be derived from widespread genetic analysis, cancer clusters, or family histories. For example, Byers, T. (CA Cancer J Clin. Vol. 49, No. 6, Nov/Dec. 1999) teaches that randomized controlled trials are commonly regarded as the definitive study for proving causality (1st col., p.358), and that in controlled trials the random assignment of subjects to the intervention eliminates the problems of dietary recalls and controls the effects of both known and unknown confounding factors. Further, Byers suggests that chemo-preventative trials be designed "long-term" such that testing occurs over many years (2nd col., p. 359). The specification is devoid of any models or experimental analysis that reasonably suggests that the claimed method would predictably prevent the recurrence of cancer. This, combined with the state of the art of preventing cancer, suggests that undue experimentation would be required to practice the invention as broadly claimed.

The specification provides insufficient guidance with regard to these issues and provides insufficient working examples which would provide guidance to one skilled in the art and insufficient evidence has been provided which would allow one of skill in the art to predict that the invention will function as contemplated or claimed with a reasonable expectation of success. For the above reasons, it appears that undue experimentation would be required to practice the claimed invention.

5. Claim 10 is rejected as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way

as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 10 is broadly drawn to a kit for carrying out the method according to claim 1, comprising a dye and a substance capable to stimulate proliferation of lymphocytes. The claims lack any limitation on said substance capable to stimulate proliferation of lymphocytes. When given the broadest reasonable interpretation, the term "a substance capable to stimulate proliferation of lymphocytes" encompasses any substance such as a protein, nucleic acid, lipids, ions, other small intracellular molecules, a carbohydrate or polysaccharide that can stimulate the proliferation of any lymphocyte, thus the genus of compounds is highly variant which vary significantly both in structure and function from each other. The description of IL-2 and anti-CD3 or anti-CD28 as agents that stimulate T cell proliferation fails to adequately describe the genus of agents because said genus tolerates members which differ significantly in both structure and function from of IL-2 and anti-CD3 or anti-CD28 and do not stimulate all lymphocytes. One of skill in the art can reasonably conclude that applicant was not in possession of a genus "a substance capable to stimulate proliferation of lymphocytes" at the time the invention was filed.

Although drawn to DNA arts, the findings in University of California v. Eli Lilly and Co., 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997) and Enzo Biochem, Inc. V. Gen-Probe Inc. are relevant to the instant claims. The Federal Circuit addressed the application of the written description requirement to DNA-related inventions in University of California v. Eli Lilly and Co., 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997). The court stated that "[a] written description of an invention involving a chemical genus, like a description of a chemical species, 'requires a precise definition, such as by structure, formula, [or] chemical name,' of the

claimed subject matter sufficient to distinguish it from other materials." Id. At 1567, 43 USPQ2d at 1405. The court also stated that a generic statement such as "vertebrate insulin cDNA" or "mammalian insulin cDNA" without more, is not an adequate written description of the genus because it does not distinguish the genus from others, except by function. It does not specifically define any of the genes that fall within its definition. It does not define any structural features commonly possessed by members of the genus that distinguish them from others. One skilled in the art therefore cannot, as one can do with a fully described genus, visualize or recognize the identity of the members of the genus. A definition by function, as we have previously indicated, does not suffice to define the genus because it is only an indication of what the gene does, rather than what it is. Id. At 1568, 43 USPQ2d at 1406. The court concluded that "naming a type of material generally known to exist, in the absence of knowledge as to what that material consists of, is not a description of that material." Id.

It is noted that as of the filing date that there were cytokines and antibodies capable of stimulating proliferation of different subsets of lymphocytes (In particular, see, Janeway et al. (Immunobiology 5, Garland Science, 2001, Appendix III and Harada et al. (Immunology 1996 87: 447-453), but they do not teach any substance that can stimulate all lymphocytes. Additionally, the claim is not limited to antibodies and cytokines, thus these antibodies and cytokine fail to describe an entire genus because the genus is highly variant encompassing members which differ significantly in structure from the art known cytokines and antibodies.

In the instant case the genus is only described as a definition by function (i.e. stimulation of proliferation of lymphocytes), and beyond cytokines and antibodies to CD3 or CD28, one of

skill in the art cannot readily visualize or recognize the identity of members of the genus in the absence of knowledge as to what that material consists of.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 5, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chin and Bear (Annals of Surgical Oncology 2002 Jan-Feb; 9(1):94-103, IDS).

Chin and Bear teach culturing lymphocytes from the sentinel lymph nodes from a mouse with a mammary tumor and expanding the lymphocytes in a culture with recombinant cytokine IL-2 and ionomycin to activate expansion of the cells, see p. 95- Materials and Methods and Fig. 2. Chin and Bear teach treating tumors with said expanded lymphocytes, see Abstract and Fig. 1 and 3. It is noted that in the absence of a limiting definition of a recombinant antigen, the recombinant IL-2 anticipates the recombinant antigen.

7. Claims 1, 2, 4-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Harada et al. (Immunology 1996 87: 447-453) as evidenced by National Cancer Institute (sentinel lymph node, www.cancer.gov, downloaded 6/12/09).

Harada et al. teach culturing lymphocytes from tumor draining lymph nodes of mice with melanomas in recombinant IL-2, anti-CD3 monoclonal and/or anti-CD28 monoclonal antibody to expand the lymphocytes, see p. 448-1st col. and Figure 1 and 2, and Table 2. Harada et al. teach treating tumors with the expanded lymphocytes, see Abstract, p 450-452 and Fig. 5-7. It is noted that in the absence of a limiting definition of a recombinant antigen, the recombinant IL-2 anticipates the recombinant antigen. Additionally, National Cancer Institute teaches that a sentinel lymph node is the first lymph node to which cancer is likely to spread from the primary tumor. Thus, given that Harada et al. teach culturing lymphocytes from tumor draining lymph nodes and these lymph nodes are the lymph nodes to which cancer is likely to first spread from the primary tumor, the draining lymph nodes of the prior art appear to be the same as the claimed sentinel lymph nodes. Although the reference does not specifically state that the draining lymph nodes were sentinel lymph nodes, the claimed product used in the claimed method appears to be the same as the prior art product, absent a showing of unobvious differences. The office does not have the facilities and resources to provide the factual evidence needed in order to establish that the product used in the method of the prior art does not possess the same material, structural and functional characteristics of the product used in the claimed method. In the absence of evidence to the contrary, the burden is on the applicant to prove that the claimed method is different from those taught by the prior art and to establish patentable differences. See In re Best 562F.2d 1252, 195 USPQ 430 (CCPA 1977).

8. Claims 1, 2, and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Okamoto et al. (Cancer Immunol. and Immunotherap. 1995 40-173-181) as evidenced by National Cancer Institute (sentinel lymph node, www.cancer.gov, downloaded 6/12/09).

Okamoto et al. teach culturing lymphocytes from tumor draining lymph nodes of mice with melanomas in recombinant IL-2, anti-CD3 monoclonal and activated B cells to expand the lymphocytes, see p. Title, Abstract, and Materials and Methods, p. 173-174 and Fig. 1-3. Okamoto et al. teach treating tumors with the expanded lymphocytes, see Abstract, Tables 1 and 2, and Figures 5 and 6. It is noted that in the absence of a limiting definition of a recombinant antigen, the recombinant IL-2 anticipates the recombinant antigen. Additionally, National Cancer Institute teaches that a sentinel lymph node is the first lymph node to which cancer is likely to spread from the primary tumor. Thus, given that Okamoto et al. teach culturing lymphocytes from tumor draining lymph nodes and these lymph nodes are the lymph nodes to which cancer is likely to first spread from the primary tumor, the draining lymph nodes of the prior art appear to be the same as the claimed sentinel lymph nodes. Although the reference does not specifically state that the lymph nodes were sentinel lymph nodes, the claimed product used in the claimed method appears to be the same as the prior art product, absent a showing of unobvious differences. The office does not have the facilities and resources to provide the factual evidence needed in order to establish that the product used in the method of the prior art does not possess the same material, structural and functional characteristics of the product used in the claimed method. In the absence of evidence to the contrary, the burden is on the applicant to prove that the claimed method is different from those taught by the prior art and to establish patentable differences. See In re Best 562F.2d 1252, 195 USPQ 430 (CCPA 1977).

9. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. App. Pub 2003/0228635 (Hu et al. Feb. 15, 2002).

US Pat. App. Pub 2003/0228635 teaches a kit with an aliquot of dye and an anti-CD3 antibody, see claims 1-3. The specification teaches that anti-CD3 antibodies can expand lymphocytes, see p. 6-line 18. Thus the anti-CD3 antibody of US Pat. App. Pub 2003/0228635 is a substance capable to stimulate proliferation of lymphocytes.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1, 2, and 4-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 90-109 of copending Application No.12/158,683 in view of Okamoto et al. (Cancer Immunol. and Immunotherap. 1995 40-173-181).

Although the conflicting claims are not identical, they are not patentably distinct from each other because they relate to the same inventive concept and would have been obvious in view of the of copending claims which have all of the characteristics of a method for treating

and/or and preventing the recurrence of cancer, which comprises the steps of a) providing lymphocytes obtained from sentinel lymph nodes from a patient; b) and expanding the lymphocytes in vitro, exposing the lymphocytes to an autologous tumor extract and antigen presenting B-cells. The claims are not drawn to using cytokines or anti-CD3 and/or anti-CD28 antibody.

Okamoto et al. teach culturing lymphocytes from tumor draining lymph nodes of mice with melanomas in recombinant IL-2, anti-CD3 monoclonal and activated B cells to expand CD8+ T-cell lymphocytes, see p. Title, Abstract, and Materials and Methods, p. 173-174 and Fig. 1-3. Okamoto et al. teach treating tumors with the expanded lymphocytes, see Abstract, Tables 1 and 2, and Figures 5 and 6.

Thus, it would have been prima facie obvious to add IL-2 or anti-CD3 monoclonal antibody to the expansion of T-lymphocytes, because Okamoto teach that IL-2 or anti-CD3 monoclonal antibody stimulate CD8+ T-cell expansion, thus one of skill in the art would have been motivated with a reasonable expectation of success to use IL-2 or anti-CD3 monoclonal antibody because they were known and used in the art for this purpose.

This is a provisional obviousness-type double patenting rejection.

11. Claims 1, 2, and 4-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 90-109 of copending Application No.12/158,680 in view of Okamoto et al. (Cancer Immunol. and Immunotherap. 1995 40-173-181).

Although the conflicting claims are not identical, they are not patentably distinct from each other because they relate to the same inventive concept and would have been obvious in

view of the of copending claims which have all of the characteristics of a method for treating and/or and preventing the recurrence of cancer, which comprises the steps of a) providing lymphocytes obtained from sentinel lymph nodes from a patient; b) and expanding the lymphocytes in vitro, exposing the lymphocytes to an autologous tumor extract and antigen presenting B-cells. The claims are not drawn to using cytokines or anti-CD3 and/or anti-CD28 antibody.

Okamoto et al. teach culturing lymphocytes from tumor draining lymph nodes of mice with melanomas in recombinant IL-2, anti-CD3 monoclonal and activated B cells to expand CD8+ T-cell lymphocytes, see p. Title, Abstract, and Materials and Methods, p. 173-174 and Fig. 1-3. Okamoto et al. teach treating tumors with the expanded lymphocytes, see Abstract, Tables 1 and 2, and Figures 5 and 6.

Thus, it would have been prima facie obvious to add IL-2 or anti-CD3 monoclonal antibody to the expansion of T-lymphocytes, because Okamoto teach that IL-2 or anti-CD3 monoclonal antibody stimulate CD8+ T-cell expansion, thus one of skill in the art would have been motivated with a reasonable expectation of success to use IL-2 or anti-CD3 monoclonal antibody because they were known and used in the art for this purpose.

This is a provisional obviousness-type double patenting rejection.

12. Claims 1, 2, and 4-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over 1-33 of copending Application No.12/147,752 in view of Okamoto et al. (Cancer Immunol. and Immunotherap. 1995 40-173-181).

Although the conflicting claims are not identical, they are not patentably distinct from each other because they relate to the same inventive concept and would have been obvious in view of the of copending claims which have all of the characteristics of a method for treating and/or and preventing the recurrence of cancer, which comprises the steps of a) providing lymphocytes obtained from sentinel lymph nodes from a patient; b) and expanding the lymphocytes in vitro, exposing the lymphocytes to an autologous tumor extract and antigen presenting B-cells. The claims are not drawn to using cytokines or anti-CD3 and/or anti-CD28 antibody.

Okamoto et al. teach culturing lymphocytes from tumor draining lymph nodes of mice with melanomas in recombinant IL-2, anti-CD3 monoclonal and activated B cells to expand CD8+ T-cell lymphocytes, see p. Title, Abstract, and Materials and Methods, p. 173-174 and Fig. 1-3. Okamoto et al. teach treating tumors with the expanded lymphocytes, see Abstract, Tables 1 and 2, and Figures 5 and 6.

Thus, it would have been prima facie obvious to add IL-2 or anti-CD3 monoclonal antibody to the expansion of T-lymphocytes, because Okamoto teach that IL-2 or anti-CD3 monoclonal antibody stimulate CD8+ T-cell expansion, thus one of skill in the art would have been motivated with a reasonable expectation of success to use IL-2 or anti-CD3 monoclonal antibody because they were known and used in the art for this purpose.

This is a provisional obviousness-type double patenting rejection.

13. No claims allowed.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER J. REDDIG whose telephone number is (571)272-9031. The examiner can normally be reached on M-F 8:30 a.m.-5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Helms Larry can be reached on (571) 272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter J Reddig/
Examiner, Art Unit 1642